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IRRIGATION DISTRICTS IN THE UNITED STATES

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IRRIGATION DISTRICTS IN THE UNITED STATES.

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Barring several earlier special and incomplete irrigation district acts, the district form of irrigation organization has been in use in the western United States since 1887. In that year the Legislature of California embodied in the so-called Wright Act the first comprehensive plan to be adopted in this country authorizing communities to bond and tax themselves for irrigation purposes. For six years following the passage of the Wright law there was great activity in the organization of irrigation districts in California, 49 having been carried through the organization stage during that period, of which, unfortunately, but few of even the worthy ones survived. Within another eight years 6 other Western States enacted laws almost identical with the Wright Act, and during the past 15 years 8 more have placed the general principles of the original Wright Act on their statute books. At this time something over 125 irrigation districts are in operation in the States of Nebraska, New Mexico, Texas, Colorado, Wyoming, Montana, Idaho, Utah, Washington, Oregon, and California, of which the larger number are in Colorado, Idaho, Nebraska, California, and Montana, in the order named. The smallest district operating contains about 500 acres, and the largest about 175,000 acres.

NATURE OF AN IRRIGATION DISTRICT.

An irrigation district under the laws of the Western States is an area segregated for irrigation purposes whose boundaries are defined by the county supervisors or commissioners on petition of a certain number of the landowners therein, and whose organization is finally authorized by the affirmative vote of a certain prescribed proportion of the electors possessing certain prescribed qualifications. When duly organized according to law, such a district possesses the right to acquire or construct and operate necessary irrigation works, including the right of condemnation, and to raise money therefor by the issuance of bonds or the levy of assessments, or both, against the real property embraced. In other words, an irrigation district as understood in the United States is a quasi public municipality having the right to issue bonds and levy assessments for irrigation purposes and to own and operate irrigation works necessary or desirable for the irrigation of the land included within the district boundaries.

The irrigation district laws of the 15 Western States that have authorized this form of irrigation organization differ considerably in detail, and in some cases in principle, more essentially in matters relating to organization, qualifications of electors, issuance of bonds, levying of assessments, and public

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control. In general it might be said that, although extensive irrigation district development has already occurred, none of the 15 district laws that have been enacted is yet fully settled.

In order to present concretely the essential features of irrigation district organization and management in the Western States the following brief outline of procedure in California is offered, but with the statement that the California law has been further developed than has the law of any of the other Western States:

OUTLINE OF PROCEDURE IN THE ORGANIZATION AND MANAGEMENT OF AN IRRIGATION DISTRICT IN CALIFORNIA.

Organization.—(*a*) Petition for organization of district presented to county supervisors by a majority of the landowners in proposed district representing a majority in value of the lands included. Copy of petition filed with State engineer. Lands included in a district must be susceptible to irrigation from a common source or sources, except that towns and cities may be included and be subject to assessment for district purposes.

(*b*) Investigation and report by State engineer. If report of State engineer is adverse, plans must be modified, unless three-fourths of landowners petition supervisors to proceed according to original plan.

(*c*) Final action by supervisors and election on organization. Two-thirds vote required to carry election.

Construction and issuance of bonds.—(*a*) Plans and estimates for irrigation works made by a competent irrigation engineer and referred to State engineer.

(*b*) Final determination by board of directors of the district on the plans and estimates and circulation of petition for bond issue, which must be signed by a majority of the owners, representing a majority in value of the lands in district.

(*c*) Election on bond issue. Majority vote required to carry.

(*d*) Investigation and report on bond issue by State engineer, State attorney general, and State superintendent of banks. If their report is favorable, bonds become legal investment for banks, trust and insurance companies, trust and State school funds, etc., and legal security for deposit of public money, etc.

(*e*) Bonds sold and contracts let, or directors proceed with construction. During construction secretary forwards progress reports of work to State engineer.

(*f*) Bonds bear interest not exceeding 6 per cent and are payable from the twenty-first to the fortieth years or earlier. Must be advertised and sold to highest bidder; i. e., can not be exchanged for work.

Assessments.—These levied on an ad valorem basis, with improvements exempted. Special assessments for maintenance and operation must be approved by a two-thirds vote of electors, assessments for completion of works by a majority vote. No vote is required on assessments for bond principal and interest or to meet payments due under lease or contract or any obligation reduced to judgment. On default by district officers, county officers act, and in case of their default district attorneys and the attorney general must compel performance.

Electors.—Electors under the general election laws of the State may vote at all irrigation district elections.

Management.—This is in the hands of a board of three or five directors chosen at general elections held biennially. An assessor, a collector, and a treasurer are also elected and a secretary is appointed by the board of directors. The directors may be elected by divisions or at large, but must represent separate divisions and reside therein. The directors have full authority to employ engineers, superintendents, and other help and to perform all acts necessary to the conduct of the business of their district, and necessary to the operation and maintenance of the irrigation works, including provision for drainage. They are required to establish equitable rules and regulations for the distribution of the water of the district. Water must be distributed ratably in accordance with assessments paid. A petition of a majority of the landowners in a district, representing a majority in value of the lands included, must be filed with the board of directors before the directors may purchase or lease property for the district costing in excess of $10,000.

EARLY EXPERIENCES OF IRRIGATION DISTRICTS AND PRESENT STATUS OF IRRIGATION DISTRICT MOVEMENT.

While, as stated above, 14 of the Western States followed California in adopting the irrigation-district principle, early irrigation-district operations in the United States were very unsatisfactory. Of the original 49 California districts, 24 disorganized or were abandoned almost immediately after organization and without any real activity whatever. Of the remaining 25 but 8 are operating in 1915, and of these 8 not more than 5 have attained anything of the success originally contemplated. The original Wright Act proved to be altogether too loosely drawn to prevent unwise and speculative ventures, and when the widespread industrial panic of the early nineties overtook the country, calamity was inevitable. To some extent there had been dishonesty, but to a larger extent failures were due to excessive optimism, inexperience, and incompetence. At any rate, the results under the original Wright Act were such that none of the other States cared to risk a repetition of the California failures and practically no irrigation-district activity was undertaken by them for more than a decade. Even in California new irrigation-district activity ceased entirely for over 10 years.

In the meantime, however, the Wright Act of 1887 was repealed and a revised act passed which corrected the most essential faults and supplied the most essential deficiencies of the former statute. With the experience of California to guide them, most of the other States gradually revised their district laws, and in the decade, 1900–1910, a new start in irrigation-district organization was launched. In this new movement Idaho, Nebraska, and Colorado led. The latter State, however, entirely failed to profit by the earlier experiences of California, and under an altogether inadequate law has within the past decade passed through an experience as disastrous as that of California under the old Wright law of 1887. Of over 50 districts organized in Colorado in the last 10 years but relatively few have proven successful and many never should have been formed. In Idaho, Nebraska, and California, however, irrigation districts organized or reorganized during the same period have almost all been relatively successful, and some have been eminently so. Taking the history of irrigation districts in the United States as a whole, therefore, and with due regard to the failure of unworthy and speculative projects, the measure of success that has been attained by the worthy and feasible farmers' organizations of this character is exceedingly creditable, and in spite of the need for further revising most of the district laws of the Western States the district form of organization is thoroughly established in western North America. In this connection it is interesting to note that the Canadian Provinces of British Columbia and Alberta have within the past two years enacted irrigation district statutes based on those of the 15 Western American States above referred to. It is now even proposed to reorganize irrigation projects of the United States Reclamation Service into irrigation districts rather than to continue the special form of water-users' associations that was put into effect when construction under the reclamation act began.

SOME COMPARISONS OF THE STATE IRRIGATION DISTRICT LAWS.

As already indicated, the irrigation district laws of the various Western States differ quite considerably. It seems desirable to outline briefly some of the more important differences, comment being based on the laws as revised down to 1915:

Organization.—The original Wright Act of California was passed in a spirit of revolt against the obstruction of the bonanza landowners and the riparian proprietors of California, and after a long and bitter, and finally a successful, fight to gain control of legislative machinery. As a result majorities of freeholders were given the power to initiate irrigation-district organizations, entirely regardless of whether they owned in the aggregate much or little of the land on which the financial burdens to be incurred would fall. Many districts were organized by majorities of owners in which the property sentiment was overwhelmingly against organization. The real need of the times was a law that would permit development to be undertaken at the instance of a majority of the substantial interests involved, and that would require all landowners, and all of those to be benefited either directly or indirectly, to bear their just burden of that development. Such temperate legislation as that, however, was hardly to be expected under the stress of the day, but when it came to redrafting the Wright Act in the light of an experience extending over a decade the futility of minority rule was recognized. Consequently the California statute was amended to require on the organization petition not a mere majority of the landowners, or less, as formerly but a majority of the landowners representing a majority in value of the lands included. This principle has been accepted in the recently enacted statutes of Texas and British Columbia. In Utah, Montana, New Mexico, and Alberta the majority of owners must represent a majority in acreage, and in Nevada and Idaho it must represent one-fourth of it. Oregon, Washington, Arizona, and Wyoming still require only a majority, with an alternative of 50 in the first-named two. Nebraska and Oklahoma require petitioners to be residents of the State, but not of the proposed district, although they must each own 10 acres in it or hold a five-year leasehold in 40 acres. The Kansas law requires three-fifths of the resident landowners. In Alberta, Canada, owners signing an organization petition must be 21 years of age and be residents within any unirrigated tract in the proposed district or within 5 miles of it. In Colorado the organization petition is sufficient if it contain the signatures of a majority of the landowners, whether resident or nonresident, owning in the aggregate a majority of the area in such district.

If any one fact was fully demonstrated by the early irrigation district failures, it would seem to be the fact that a public investigation of feasibility should precede organization. Still of the 15 Western States of America having irrigation district laws California, Idaho, Wyoming, Nebraska, and Oklahoma stand alone in requiring a preliminary report by the State engineer. British Columbia, Canada, gives to its minister of lands discretionary authority to make a thorough investigation of each proposed district and to report on the feasibility, practicability, and probable cost, and organization must be approved by the board of investigation. Texas requires that feasibility shall be considered by the county commissioners court, which is given authority to refuse organization of a district if it would not be feasible or practicable, would not be a public benefit, is not needed, or would not be a public utility.

Issuance of bonds.—The earlier provisions regarding the issuance of bonds left the calling of bond elections optional with boards of directors and merely required that they should estimate and determine the amount of money necessary. No provision was made for thorough investigations regarding feasibility or regarding plans and specifications for construction. This absence of any essential prerequisites to the calling of bond elections or the issuance of bonds resulted in gross abuse, and in many cases large bond issues were voted without any clear conception as to where water was to be obtained or as to the

character and cost of works necessary to bring it to the land. The amended California act of 1897 assumed to strike at the root of the evil growing out of the former loose practice by providing that not only should a majority of owners, representing a majority in value of the land, be required to propose an irrigation district, but that a petition signed by similar majorities should be submitted before a bond election could be called. Even then, however, the need for adequate engineering investigations was overlooked. When the irrigation district law of Idaho was revised, however, this need was taken into consideration and a provision inserted that all surveys, examinations, maps, plans, and estimates requisite to ascertaining the cost of any proposed construction work should be prepared by a competent irrigation engineer and submitted for report to the State engineer. The practice in this regard first adopted by Idaho is now followed in more or less degree in Oregon, Wyoming, Nebraska, New Mexico, California, and Oklahoma, the last named being the latest to adopt this very desirable amendment. Such a provision was formerly contained in the Nevada law, but has since been eliminated.

California retains the requirement for a petition by a majority of owners representing a majority in value of the lands included; and in Montana a petition is necessary, but it need represent only a majority in acreage rather than a majority in value. In Kansas no preliminary examinations are specified, but a petition is necessary from three-fifths of the resident landowners. In Texas surveys and plans must be made by the engineer of the district and the assessment roll completed and filed before a bond election can be called. In British Columbia the board of investigation must approve plans and estimates. In Arizona after the board has adopted a general plan of operation, an examination and certified report is made by a competent engineer. In Alberta surveys and estimates must be made by a qualified engineer, the assessment roll must be completed, a showing must be made that the proposed works will not cost over $25 per acre or involve an annual maintenance and administration cost exceeding $1.50 per acre, and finally the by-law providing for the loan must be approved by the minister of public works. In Washington, Utah, and Colorado no preliminary investigations are required, and the estimate is made wholly by the board of directors. In Montana no election is held on bond issues, but the plans must be prepared by a competent engineer and the amount of money necessary to be raised determined by the board of directors. The Montana law requires, however, that the signatures to the petition must be verified by affidavit. In Wyoming the holding of a water-right permit from the State engineer is a further requirement.

Absence of adequate control over the disposal of the bonds once voted was a striking feature of the earlier irrigation-district legislation. In California, especially, there was much irregularity, some of it undoubtedly fraudulent, and numerous were the ways that were tried to circumvent the law as construed by the courts, some of them both amusing and ingenious. The settled policy came to be that bonds could not be traded for work or sold other than for cash, but there is now considerable variation in the practice followed in the several States. In California bonds must be advertised and sold to the highest bidder, but in practice the bidder has usually, with a few recent notable exceptions, been the contractor's financial backer. The original requirements that bonds should not be sold for less than par has been eliminated by California, but the State now provides for an investigation and report on the physical and financial feasibility of irrigation-district projects and on the water rights held, by the State engineer, the attorney general, and the superintendent of banks. This investigation, although not compulsory, ordinarily precedes the offering of the bonds for sale.

In Oregon, Washington, Utah, Arizona, Colorado, New Mexico, Texas, Idaho, Montana, Wyoming, and British Columbia bonds may be used in the purchase of works or rights or for construction, and in Nevada, Nebraska, and Oklahoma they may be exchanged for works and rights but not for construction. In Nevada, Idaho, Kansas, and Texas bonds must bring par, but in Oregon, Washington, Utah, Arizona, Montana, Wyoming, Nebraska, Colorado, Oklahoma, and New Mexico they can not be sold below limits prescribed by law, which vary from 85 to 95, it being provided in some cases that if exchanged directly for works, water rights, construction, etc., the bonds must go at par. In Texas, court confirmation of the validity of the bonds, a favorable report by the attorney general of the State on their legality, and registration by the comptroller of accounts are all necessary prerequisites. In British Columbia both the form and price of debentures must be approved by the board of investigation, and with the approval of the board of investigation the trustees of districts may mortgage debentures remaining unsold. The trustees of districts in British Columbia are also allowed to use unsold bonds for the payment of any legal indebtedness. The usual interest rate on bonds as specified by the laws is not exceeding 6 per cent. Seven per cent is allowed in Idaho, and in the Canadian Provinces it is enough that it be specified in the by-law covering the issuance.

Assessments.—One of the most controverted points in connection with irrigation districts has been the basis of levying assessments. California started with the ad valorem basis, including improvements, but by recent amendment improvements have been eliminated. Nebraska now follows the California law as to both the ad valorem basis and exemption of improvements and Oklahoma has adopted the same provision, and Texas uses the ad valorem basis for collecting the principal and interest of bonds, but provides that for maintenance one-third of the assessments raised shall be prorated on an acreage basis against all land to which water can be furnished, the remaining two-thirds to be paid by the actual water users. Idaho leads in making assessments in accordance with an apportionment of benefits and has been followed in more or less degree by Washington and Nevada. In British Columbia the ad valorem basis is used when benefits are substantially uniform, with improvements exempted, otherwise assessments are levied according to a classification, depending upon benefits.

In Oregon, Utah, Arizona, Montana, Wyoming, Colorado, New Mexico, and Alberta assessments are levied at a uniform rate per acre, with the proviso usually added that no lands shall be assessed that are not irrigable from the source of water adopted.

IRRIGATION DISTRICT FINANCE.

With the exception of during the earliest years of operation under the original Wright Act and during a brief period in the decade 1900 to 1910, the marketing of irrigation district bonds has always been a serious problem, as it is to-day. Yet, considering the history of irrigation districts in the United States, this can not be considered as surprising. The many mistakes and failures under the original Wright Act left an indelible impression on investors, and the use of the district form of organization in a speculative way in several of the States during the decade 1900 to 1910 created a new feeling of antagonism. This bad history, coupled with the frequent examples of bad management on the part of boards of directors, has seriously handicapped this form of enterprise. The entire West, however, seems now inclined to place irrigation dis-

tricts on an entirely sound basis. It is now fully realized that the day for irrigation district wildcatting is definitely and finally past; also that for the best results the States themselves must honestly and effectively exercise supervision and control both in the organization of the districts and in their management. Further than this, eastern and many western financiers seem to be insisting that offerings of irrigation-district securities shall be confined to districts that have passed the construction stage and are successfully operating. These financiers take the view that enterprises not yet through the construction stage must be classed as speculative and must be financed by other means than securities offered to the investing public. Only when enterprises are established and no longer speculative, they say, should the public be asked to furnish money at the interest rates common to investment securities.

In some cases it has been proposed either that the States themselves should lend their credit to districts during the construction period, or that construction should be financed on a basis that will allow the usual promoters' profit, leaving the matter of permanent financing to be taken up when success has been attained. It is very clear that those who are guiding irrigation district policies in the West are coming to be in much closer touch than formerly with the eastern financial centers that are called upon to furnish the money, and that we may look forward in the not distant future to such integrity of irrigation district organization as will give to irrigation district securities a standing that the security back of worthy projects fully justifies. Before this condition can be reached, however, it is certain that various States must look carefully to their irrigation district laws and not only provide safeguards against unworthy projects but take such part in the supervision of irrigation districts that the internal management of these farmers' enterprises will be of such a nature as to entitle them to public credit. In addition to these changes, it is not altogether improbable that some form of State aid in financing irrigation districts will be put into effect in some of the more progressive western Commonwealths. Owing to the fact that construction is now far in advance of settlement in irrigation districts as well as on other western projects, however, nothing is likely to be done in the immediate future to stimulate greatly new district development.

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